REMARKS

In view of the above amendments and following remarks, reconsideration and further examination are requested.

As indicated in the response filed November 15, 2003, Fig 1G has been amended to correctly identify the conductive particle bodies 10a-1 and the insulation layer 10a-2, and Figs 15, 16A and 16B have been labeled as "Prior Art"

As indicated in the response filed, the specification has been reviewed and revised to make editorial changes thereto and generally improve the form thereof. No new matter has been added by the revisions to the specification and abstract.

By the current Amendment claims 81, 106 and 108 have been cancelled and claims 72, 76, 82, 83, 85-88, 90-92, 94-97, 101, 102, 109, 112, 116, 122-124 and 126 have been amended. Claims 72-80, 82-105, 107 and 109-142 have been drafted taking into account the objection noted by the Examiner in section 2 on page 2 of the Office Action dated May 5, 2003, and also taking into account the 35 U.S.C. § 112, second paragraph, rejection of claims 30 and 37-40 as expressed in that Office Action. Claims 72-80, 82-105, 107 and 109-142 are believed to be free of the basis for this objection and rejection, and are otherwise believed to be in compliance with 35 U.S.C. § 112, second paragraph.

Claims 72-80, 82-105, 107 and 109-142 are believed to be allowable over the references relied upon by the Examiner to reject claims 25-27, 29, 30, 33, 36-40, 64 and 69 for the following reasons.

Claim 72 recites a method for mounting an electronic component that comprises *inter alia*

> forming...a bump...and shaping a tip of said bump...by
> applying a load of not greater than 20 gf to said bump...and
> then... bonding said electronic component to said circuit board.

Similarly, claim 109 recites an apparatus for mounting an electronic component that comprises *inter alia*

> a device for forming...a bump...and a device for...shaping
> a tip of the bump...by applying a load of not greater than 20 gf to
> the bump...and then...bonding the electronic component to the
> circuit board.

As expressed on page 69, lines 14-22 of the specification, the significance of shaping a tip of the bump prior to bonding the electronic component to the circuit board is that prevented is a short circuit with adjacent bumps or electrodes, which could otherwise result from collapse of a neck portion of the bump during bonding of the electronic component to the circuit board.

Claims 72 and 109 are allowable over the references relied upon by the Examiner, either taken alone or in combination, because none of these references fairly teach or suggest the method of claim 72 or the apparatus of claim 109, wherein prior to bonding an electronic component to a circuit board a tip of a bump on the electronic component is shaped by applying a load of not greater than 20 gf to the bump.

In this regard, claim 26 recited that a tip of a bump on an electronic component, to be bonded to a circuit board, is shaped by applying a load of not greater than 20 gf to the bump, before bonding the electronic component to the circuit. In rejecting this claim, the Examiner took the position that Nishida (WO '073) teaches such shaping and directed Applicants' attention to Figures 3A-3C of this reference. This position taken by the Examiner is respectfully traversed for the following reasons.

With regard to Figures 3A-3C of Nishida, while these figures do show a shaped bump 3, a tip of the bump is **not** shaped by "applying a load of not greater than 20 gf to the bump", as recited in each of claims 72 and 109. Rather, as explained in the paragraph bridging columns 12 and 13 of this reference, the shape of the bump 3 is realized by manipulating holder 93 to move in a rectangular loop 99 while holding wire 95. In Nishida no load is applied to the tip of the bump prior to mounting an electronic component, on which the bump is located, onto a circuit board. The only load applied to the bump 3 occurs during mounting of the electronic component onto the circuit board.

None of the other references relied upon by the Examiner resolve this deficiency of Nishida, and accordingly, claims 72 and 109 are allowable over the references relied upon by the Examiner, either taken alone or in combination. Thus, claims 72-80, 82-105, 107 and 109-142 are allowable.

Additionally, certain of the dependent claims are believed to be patentable in their own right, as follows.

Claims 98 and 122 recite that bonding of the electronic component to the circuit board is to be performed by applying first and second pressures to the electronic component at different times,

with the second pressure being less than the first pressure. Such a feature allows for stress to be alleviated in the circuit board and electronic component, and is not taught or suggested by any of the references relied upon by the Examiner. Accordingly, claims 98 and 122 are each patentable in its own right.

In view of the above amendments and remarks, it is respectfully submitted that the present application is in condition for allowance and an early Notice of Allowance is earnestly solicited.

If after reviewing this Amendment, the Examiner believes that any issues remain which must be resolved before the application can be passed to issue, the Examiner is invited to contact the Applicants' undersigned representative by telephone to resolve such issues.

Respectfully submitted,

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